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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,674	06/18/2001	Thomas J. Nosella	CISCP185	1033
22434 7590 12/10/2009 Weaver Austin Villeneuve & Sampson LLP P.O. BOX 70250 OAKLAND, CA 94612-0250				
EXAMINER HO, DUC CHI				
ART UNIT 2465		PAPER NUMBER		
NOTIFICATION DATE 12/10/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@wavsip.com

Office Action Summary

Application No.

09/883,674

Applicant(s)

NOSELLA ET AL.

Examiner

DUC C. HO

Art Unit

2465

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 36 is/are allowed.
6) ☒ Claim(s) 1-35 and 37-44 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SF/c2)
Paper No(s)/Mail Date 12-02-02;3-22-04;05-04-04
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-35 and 37-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in figure 1-3 of the instant application, hereinafter referred to as the APA.

Regarding claim 1, the APA in figure 1 discloses a Cisco hot standby router protocol (HSRP), see pages 1-2.

*receiving an address resolution protocol (ARP) message from a host
addressed to an address shared by a plurality of gateway devices to act as the*

addressee gateway devices available for serving the hosts on the network segment (the router GW1-110a, fig. 1, a primary member of the RG108 receives an ARP message from the host 120a addressed to a virtual MAC address 118, and a virtual IP address 116. The virtual IP and virtual MAC addresses are shared by a plurality of routers 110 (a-d) for serving all hosts 120 (a-c) on the sub network 130, see pages 2-3);

selecting one of the plurality of gateway devices to act as the addressee gateway device for the host (in response to the received ARP message, the primary member GW1-110a, fig. 1 is selected to act as the addressee gateway device for the host);

replying to the ARP message with a reply message identifying the selected addressee gateway device (The primary member 110a of the RG 108 responds with a reply message by inherently identifying its virtual MAC address 118-fig. 1 as default gateway services for all hosts 120s, see page 3).

The APA in figure 1, however, does not expressly teach load balancing considerations in response to the received ARP message.

The APA in figure 3 discloses multiple RG configuration that provides a load balancing function, see page 3. Multiple user groups 130a, 130b use the multiple default gateway IP addresses 116a, 116b, respectively, assigned to RGs 108a, 108b. In RG 108a, member 110a has assumed the primary RG member role for the hosts 120a-b, while in RG 108b, member 110c has assumed the primary RG member role for the host 120c.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ a mechanism of multiple redundancy groups as taught by the APA in figure 3 into the system in figure 1 of the APA. The suggestion/motivation for doing so would have been to provide automatic load balancing function for network routers to achieve greater efficiency, in addition to prior art feature of multiple redundancy group.

Regarding claim 2, in the APA the gateway devices 110a-d, fig.1 are the multiple routers, which are layer 3 devices.

Regarding claim 3, in the APA-1 the address 116-fig.1 or VIP:10.0.0.100-fig. 1 is a virtual IP address, see page 2.

Regarding claim 4, in the APA, the reply message of the ARP request identifies the gateway device 110a with its VMAC address 118-fig.1 as a layer-2 address.

Regarding claim 5, in the APA, the layer 2 address 118-fig.1 for the default gateway device 110a is a VMAC or a virtual MAC address.

Regarding claim 6, the APA at figure 2, page 3 of the instant application discloses that if the primary member 110a of the RG 108 should fail as shown in figure 2, a secondary member 110b will assume the VMAC and VIP address 118,116, and effectively becoming the primary member and thereby providing uninterrupted gateway services to the hosts 120a-c of the common subnet 130-fig.2.

Regarding claim 7, in the APA at figure 2, the secondary member 110b-fig. 2 is redistributed as the primary gateway responsible for any hosts for which the failed gateway device had been serving as the primary gateway device.

Regarding claim 8, this claim has similar limitations as claims 1 and 6. Therefore, it is rejected under the APAs in fig.1-3 for the same reasons set forth in the rejection of claims 1 and 6.

Regarding claim 9, in the APA the gateway devices 110a-d, fig.1 are the multiple routers, which are layer 3 devices.

Regarding claims 10-16, these claims have similar limitations as claims 1-7, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 1-7.

Regarding claims 17-18, these claims have similar limitations as claims 8-9, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 8-9.

Regarding claim 19, please see the rejection of claim 1. The APAs of the instant application in page 2 discloses a master gateway i.e. 110a-fig.3, a standby (slave) gateway, i.e., 110b-fig.1, and a host, i.e., 120a-fig.3 i.e.; each includes components such as: a memory, a network interface, and a processor configured to perform the claimed limitations.

Regarding claims 20-25, these claims have similar limitations as claims 2-7, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 2-7.

Regarding claims 26-31 and 44, these claims have similar limitations as claims 1-7, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 1-7.

Regarding claims 32-33, these claims have similar limitations as claims 8-9, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 8-9.

Regarding claim 34, this claim has similar limitations as claim 8. Therefore, it is rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claim 8.

Regarding claim 35, the APA in figure 3 discloses a plurality of gateways 110a-d configured to assume responsibility for any addressee gateway device that fails.

Regarding claims 37-43, these claims have similar limitations as claims 1-7, respectively. Therefore, they are rejected under the APAs in figures 1-3 for the same reasons set forth in the rejection of claims 1-7.

Response to Arguments

4. Applicant's arguments with respect to claim 1, 8, 10, 17, 19, 26, 32, 34, and 37 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

5. Claim 36 is allowed.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147.

The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

/DUC C HO/

Primary Examiner, Art Unit 2465

12-06-09

